

**TRANSMITTAL LETTER TO THE UNITED STATES  
DESIGNATED/ELECTED OFFICE (DO/EO/US)  
CONCERNING A SUBMISSION UNDER 35 U.S.C. 371**

ATTORNEY'S DOCKET NUMBER

VTU-105883-026

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)

10/520222

INTERNATIONAL APPLICATION NO.  
PCT/US2003/020729

INTERNATIONAL FILING DATE  
02 July 2003 (02.07.2003)

PRIORITY DATE CLAIMED  
02 July 2002 (02.07.02)

**TITLE OF INVENTION**

System for Improving Engine Performance and Reducing Emissions

**APPLICANT(S) FOR DO/EO/US**

James C. Juranitch and Robert D. Olschefski

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

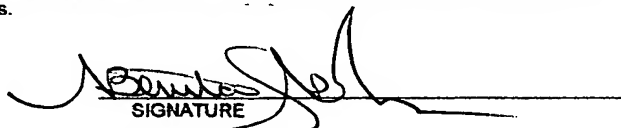
1. ☒ This is a **FIRST** submission of items concerning a submission under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a submission under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (21) indicated below.
4. ☐ The US has been elected (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
  - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ has been communicated by the International Bureau.
  - c. ☒ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
  - a. ☐ is attached hereto.
  - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))
  - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
  - b. ☐ have been communicated by the International Bureau.
  - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
  - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11 to 20 below concern document(s) or information included:

11. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☒ A preliminary amendment.
14. ☐ An Application Data Sheet under 37 CFR 1.76.
15. ☐ A substitute specification.
16. ☐ A power of attorney and/or change of address letter.
17. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.
18. ☐ A second copy of the published International Application under 35 U.S.C. 154(d)(4).
19. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
20. ☒ Other items or information: Cert. of Ex. Mail - Label ER759375767US; postcard receipt

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)		INTERNATIONAL APPLICATION NO.		ATTORNEY'S DOCKET NUMBER	
10/520222		PCT/US2003/020729		VTU-10588-026	
21. The following fees are submitted:					
<input checked="" type="checkbox"/> a) Basic national fee.....				\$300.00	
<input checked="" type="checkbox"/> b) Examination fee.....				\$200.00	
<input checked="" type="checkbox"/> c) Search fee.....				\$500.00	
TOTAL OF ABOVE CALCULATIONS =				\$1000.00	
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing or computer program listing filed in an electronic medium). The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra sheets	Number of each additional 50 or fraction thereof (round up to a whole number)		RATE	
- 100 =	/50 =			x \$250.00	\$ —
Surcharge of \$130.00 for furnishing the oath or declaration later than 30 months from the earliest claimed priority date (37 CFR 1.492(e)).					\$ 130.00
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	49 - 20 =	29	x \$50.00	\$1,450.00	
Independent claims	4 - 3 =	1	x \$200.00	\$ 200.00	
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360.00	\$ —	
TOTAL OF ABOVE CALCULATIONS =				\$2,780.00	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. The fees indicated above are reduced by 1/2.				\$ 1,390.00	
SUBTOTAL =				\$1,390.00	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				\$ —	
TOTAL NATIONAL FEE =				\$1,390.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				\$ —	
TOTAL FEES ENCLOSED =				\$ 1,390.00	
Amount to be refunded:					\$
Amount to be charged:					\$
<p>a. <input checked="" type="checkbox"/> A check in the amount of \$ 1,390.00 to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-0720. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. <b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p>					
NOTE: Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.					
SEND ALL CORRESPONDENCE TO:					
Rohm & Monsanto, PLC 12 Rathbone Place Grosse Pointe, MI 48230					
 SIGNATURE					
Benita J. Rohm NAME					
28,664 REGISTRATION NUMBER					

10/520222

DT15 Rec'd PCT/PTO 03 JAN 2005

Att'y. Docket No.: VTU-105883-00026

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S) : James C. Juranitch and Robert D. Olschefski )  
SERIAL NO. : to be assigned )  
INT'L. SER. NO. : PCT/US2003/20729 )  
FILED : 03 January 2005 (Ex. Mail) )  
INT'L. FILE DATE : 02 July 2003 )  
FOR : System for Improving Engine Performance )  
And Reducing Emissions )

Mail Stop PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

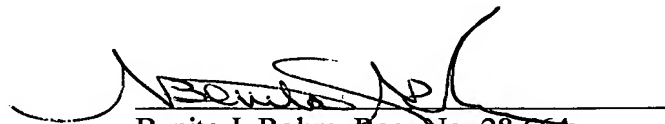
## CERTIFICATE OF MAILING

BY

## EXPRESS MAIL

Express Mail Label Number ER 759375767 USDate of Deposit: 03 January 2005

I hereby certify that a Transmittal Letter to the United States Designated/Elected Office (DO/EO/US) Concerning A Submission Under 35 U.S.C. 371 (Form-1390); Preliminary Amendment; and a check in the amount of \$1,390.00 for the filing fee for entry into the US national stage under 35 USC 371 are being deposited under 37 CFR 1.10 as Express Mail Post Office to Addressee on the date indicated hereinabove and addressed to the Mail Stop PCT US DO/EO, Assistant Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



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